REMARKS

This paper is submitted in reply to the Office Action dated May 19, 2009 within the three-month period for response. Reconsideration and allowance of all pending claims are respectfully requested.

In the subject Office Action, claims 1, 3, 6, 8, 10-15 and 36 were rejected under 35 U.S.C. § 102(b) as being anticipated by IBM Technical Disclosure Bulletin No. NN960149, published Jan. 1996, entitled "Efficient Management of Remote Disk Subsystem Data Duplexing" (hereinafter, "the IBM Bulletin"); claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the IBM Bulletin in further view of U.S. Patent No. 6,487,645 to Clark et al. ("Clark"); and claims 7, 9 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the IBM Bulletin in further view of U.S. Patent No. 5,592,618 to Micka et al. ("Micka"). Additionally, the Examiner rejected claim 9 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particular point out and distinctly claim the subject matter that applicant regards as the invention. Finally, the Examiner objected to paragraph [0052] of the specification.

As an initial matter, Applicant wishes to thank the Examiner for his consideration extended in the telephonic interview between the Examiner and Applicant's representatives on June 16, 2009. In the interview, the claims were discussed, and the Examiner suggested that the amendments presented herein (which were suggested by the Examiner) would overcome the current rejections. If the Examiner is of the belief that the claims as they presently read are not yet in proper condition for allowance, the Examiner is urged to contact the undersigned for a follow-up telephone interview.

Thus, Applicant respectfully traverses the Examiner's rejections to the extent that they are maintained. Specifically, Applicant has amended independent claims 1 and 14 as suggested by the Examiner and amended dependent claims 12 and 13 for consistency therewith. Applicant has also amended paragraph [0052] to overcome the formalities objection and claim 9 to overcome the §112 rejection. Furthermore, Applicant has added new claims 38-56 that include apparatus claims 38-54 and program product claims 55-56. Applicant does not believe that any additional charges are necessary, as 6 independent

claims and 35 total claims were originally paid for, while the claims presented herein include 6 independent claims and 33 total claims. Applicant has also amended the Abstract as well as paragraph [0011] for consistency with the newly added claims. Applicant respectfully submits that no new matter is being added by the above amendments, as the amendments are fully supported in the specification, drawings and claims as originally filed. Applicant also notes that the amendments made herein are being made only for facilitating expeditious prosecution of the aforementioned claimed subject matter. Applicant is not conceding in this application that the originally claimed subject matter is not patentable over the art cited by the Examiner, and Applicant respectfully reserves the right to pursue this and other subject matter in one or more continuation and/or divisional patent applications.

Now turning to the subject Office Action, and initially to the Examiner's informality objection to the specification, the Examiner will note that the Applicant has amended paragraph [0052] to say "Alternatively, should a group be in progress at block 104…" With regard to the Examiner's §112 rejection of claim 9, Applicant has amended this claim to recite that the method "further comprises" the reading step. Applicant thus submits that the Examiner's informality objection and §112 rejection have been traversed through the foregoing amendments. Withdrawal of the informality objection and the §112 rejection are therefore respectfully requested.

Turning to the art-based rejections, Applicant notes that all the claims (with the exception of the newly added claims) are rejected based at least in part on the IBM Bulletin. Turning specifically to the §102 rejection of independent claim 1, in order for a reference to anticipate a claimed invention that reference must teach each and every element in the precise arrangement set forth in the claim. See MPEP § 2131. If the reference fails to teach even one of the claimed features claimed invention cannot be anticipated by the reference.

Claim 1 has been amended herein as per the Examiner's suggestion to clarify that the second group is created in response to receiving the second update request from the application prior to ending the formation of the first plurality of update requests (e.g.,

prior to ending the formation of the first group). As such, independent claim 1 now generally describes a method for updating data that creates groups of update requests in response to receiving more than one update request from an application. For example, a first group of update requests is created in response to receiving a first update request from an application, while a second update request from the same application and prior to ending the formation of the first group "triggers" the creation of a second group of update requests. The update requests inside each group are capable of being processed concurrently and without regard for order relative to each other, while the groups themselves are not. Support for these amendments may be found throughout the specification and drawings.

In the most recent rejection, the Examiner alleges that the IBM Bulletin discloses all of the limitations of claim 1. Applicant, however, respectfully disagrees. In fact, the IBM Bulletin fails to disclose a number of limitations of claim 1, including creating a first group that in turn includes a first plurality of update requests in response to receiving a first update request as well as creating a second group that in turn includes a second plurality of update requests in response to receiving a second update request prior to ending the formation of the first group. Rather, the IBM Bulletin merely discloses reading updates based on a specified time. Specifically, the IBM Bulletin discloses a system that includes a Serializer synchronized with a plurality of Control Units. See the IBM Bulletin, page 3, ll. 2-3 and ll. 20-22. Each Control Unit includes two buffers to store updates to records. See the IBM Bulletin, page 3, ll. 4-5. At any given time, one buffer (referred to as "Current Buffer") gathers updates while the other buffer (referred to as "Previous Buffer") is read out by the Serializer. See the IBM Bulletin, page 3, ll. 10-11 and 29-34, as well as page 3, l. 41 to page 4, l. 1. The Serializer is configured to provide, to each Control Unit, a "Toggle Time," or future point at which the Current Buffer and Previous Buffer will switch roles. See the IBM Bulletin, page 3, ll. 23-27 and 37-39. Thus, the IBM Bulletin ultimately discloses that pluralities of update requests are formed into groups based on specific times.

Applicant respectfully submits that that the teachings of the IBM Bulletin are insufficient to disclose or suggest creating a first group that in turn includes a first

plurality of update requests in response to receiving a first update request as well as creating a second group that in turn includes a second plurality of update requests in response to receiving a second update request prior to ending the formation of the first group. As such, Applicant respectfully submits that, to the extent that the IBM Bulletin discloses placing updates in buffers, the system thereof operates as intended. However, the IBM Bulletin is merely concerned with creating groups of updates based upon the Toggle Time (at which time the functions of buffers are switched), not with creating groups based on the receipt of update requests. As such, the IBM Bulletin is unconcerned with the creation of groups of update requests <u>at all</u>, and understandably does not disclose or suggest creating a first group including a first plurality of update requests in response to receiving a first update request from an application and creating a second group including a second plurality of update requests in response to receiving a second update request from the application prior to completing the first plurality of update requests.

Amended independent claim 1 further recites that the first update request of the first plurality of update requests in the first group has an order dependency relative to the second update request of the second plurality of update requests in the second group. As such, claim 1 indicates that there is an order dependency between two plurality of update requests based on individual update requests within those plurality of update requests. The Examiner indicates that the IBM Bulletin discloses that a group in the Current Buffer has an order dependency relative to a group in the Previous Buffer. However, Applicant respectfully submits that order dependency in the IBM Bulletin is relative to time (for example, before and after Trigger Time) while order dependency in claim 1 is relative to receiving update requests (receiving the first update request and creating a group, then receiving the second update request prior to completion of the first group and creating the second group).

Because the specific limitations of claim 1 are not present in any of the references, there must be some objective reason why one or ordinary skill in the art would modify the disclosures of the various references to incorporate the specific limitations recited in claim 1. However, Applicant respectfully submits that the

Examiner has not provided an objective reason why one of ordinary skill in the art would be motivated to modify the disclosure of the IBM Bulletin to incorporate the specific limitations recited in claim 1. As such, Applicant respectfully submits that independent claim 1, and claims 3, 4, 6-13 and 36 that depend therefrom, is novel and non-obvious over the cited reference.

Moreover, Applicant further respectfully submits that the remaining cited references, Clark and Micka, fail to relieve the deficiencies of the IBM Bulletin. For example, Clark discloses a primary and secondary subsystem in which updates are buffered and stored in subparts of the primary subsystem, then copied to the second subsystem. See Clark, Abstract. In the event that a particular storage subpart is associated with too many updates, at least one update directed thereto is rejected. See Clark, Abstract. Micka, on the other hand, is merely duplicative of the IBM Bulletin in that Micka discloses gather groups of updates in a group over a period of time, then after that period of time reading a group of updates out. See Micka, col. 9, ll. 50-62 and col. 10, ll. 27-48. Micka, however, discloses that updates in groups must be processed in the order at which they were originally stored. See Micka, Abstract. Moreover, both Clark and Micka, similarly to the IBM Bulletin, fail to disclose or suggest an order dependency relative to receiving update requests as recited in claim 1. Thus, the IBM Bulletin, Clark and Micka, whether taken alone or in combination, fail to disclose or suggest all the limitations of claim 1, a prerequisite for an obviousness determination. Specifically, the IBM Bulletin, Clark and Micka fail to disclose or suggest creating a first group including a first plurality of update requests in response to receiving a first update request from an application and creating a second group including a second plurality of update requests in response to receiving a second update request from the application prior to completing the first plurality of update requests.

Applicant respectfully submits that, in light of the foregoing, the IBM Bulletin, Clark and Micka, whether taken alone or in combination, fail to disclose or suggest all the limitations of the amended independent claim 1. As such, Applicant respectfully submits that amended independent claim 1 is novel and non-obvious over the cited

references. Therefore, Applicant respectfully requests reconsideration and allowance of claim 1, and of claims 3, 4, 6-13 and 36 that depend therefrom.

Next with regard to the Examiner's rejection of independent claim 14, this claim generally recites a method for updating data at a backup system that tracks updates made to a primary system. Applicant has amended claim 14 in a similar manner to claim 1, and thus that claim now recites, at least in part, that receipt of a second update request prior to ending the formation of a first group initiates the creation of a second group of update requests.

As discussed above in connection with claim 1, the IBM Bulletin, Clark and Micka fail to disclose or suggest, alone or in combination, the concept of triggering the creation of the second group of update requests on receiving a second update request from an application prior to ending the formation of a first group of update requests. Thus, for the foregoing arguments presented in connection with amended independent claim 1, Applicant respectfully submits that independent claim 14 is novel and non-obvious over the IBM Bulletin, Clark and Micka, either alone or in combination, and the rejection thereof should be withdrawn. Reconsideration and allowance of claim 14, and of claims 15-16 that depend therefrom, are therefore respectfully requested.

Next, with regard to new claims 38-56, the Examiner will note that independent claims 38 and 54 are apparatus claims that correspond to amended independent method claims 1 and 14, respectively, while new independent claims 55 and 56 are program product claims that correspond to amended independent method claims 1 and 14, respectively. Therefore, these claims are patentable over the prior art of record for the same reasons presented above in connection with independent claims 1 and 14. Thus, Applicant respectfully requests allowance of claim 38, and of claims 39-53 that depend therefrom, as well as claims 54-56.

As a final matter, Applicant traverses the Examiner's rejections of the dependent claims based upon their dependency on the aforementioned independent claims. Nonetheless, Applicant notes that a number of these claims recite additional features that further distinguish these claims from the references cited by the Examiner. However, in

the interest of prosecutorial economy, these claims will not be addressed separately herein.

In summary, Applicant respectfully submits that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the undersigned at (502) 561-6270. Additionally, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

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Date

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